

REMARKS

Claims 1 and 3-20 are pending in the present application. Applicant respectfully requests reconsideration of the present claims in view of the following remarks.

Claim Rejections Under 35 U.S.C. §103

Claims 1-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent Publication No. 2003/0226015 to Neufeld et al. (hereinafter “Neufeld”) in view of United States Patent No. 6,560,641 to Powderly et al. (hereinafter “Powderly”). Claim 2 was canceled without prejudice or disclaimer in a previous Office Action Response, rendering this rejection moot with regards to claim 2, so Applicant presumes that claims 1 and 3-20 are actually rejected under 35 U.S.C. §103(a) as being unpatentable over Neufeld in view of Powderly. Applicant respectfully traverses these rejections.

Claim 1 recites that a method for communicating with a computer management device comprises defining, at a host computer managed by the computer management device, one or more vendor specific commands, said vendor specific commands conforming to a first communication standard; emulating a device at the management device, the emulated device conforming to a second communication standard; transmitting, from the host computer, the one or more vendor specific commands to the emulated device over a communications link between the host computer and the management device, the communications link conforming to the second communication standard; receiving the one or more vendor specific commands at the management device; determining, at the management device, whether the one or more vendor specific commands are intended for the emulated device; and in response to determining that the one or more vendor specific commands are not intended for the emulated device, utilizing the received vendor specific commands for communicating with the management device.

Neufeld does not teach, suggest, or describe a method for communicating with a computer management device including the features recited by claim 1. On the contrary, Neufeld describes a method for accessing, interacting, and monitoring a managed server from a remote console including providing a remote management controller on a PCI bus of the managed server; snooping, at the remote management controller, the PCI bus for configuration transactions between a processor and a video graphics controller of the managed server; and

routing keystrokes to a keyboard controller of the managed server from the remote console. Neufeld describes that the PCI bus of the managed system is the main communication interface between the managed server and the remote management controller. Neufeld further describes that the remote management controller includes a USB interface connected to one port of a USB controller typically located in a south bridge portion of the managed server and that the remote management controller may emulate a USB device, such as a USB floppy drive or USB CD drive, that allows the remote management controller to mount additional storage volumes to the managed server residing on an application such as a remote management console.

This is not analogous to the method recited by claim 1 because Neufeld fails to teach, suggest, or describe transmitting, from the host computer, the one or more vendor specific commands to the emulated device over a communications link between the host computer and the management device, the communications link conforming to the second communication standard. Instead, Neufeld describes that the managed server transfers data between a processor of the managed server and a video graphics controller of the managed server over a PCI bus of the managed server and that the remote management controller snoops the data sent by the processor of the managed server to the video graphics controller of the managed server, without teaching, suggesting, or describing that the managed server transmits a vendor specific command to a device emulated by the remote management controller over a communication link between the managed server and the remote management controller. Neufeld describes that the remote management controller may emulate a USB device but fails to teach, suggest, or describe that the managed system transmits any commands to the USB device emulated by the remote management controller.

The Office Action points to paragraph [0017] of Neufeld as allegedly teaching transmitting, from the host computer, the one or more vendor specific commands to the emulated device over a communications link between the host computer and the management device, the communications link conforming to the second communication standard as recited by claim 1. Applicant respectfully disagrees with this assertion. Paragraph [0017] of Neufeld is reproduced below:

[0017] In a typical remote management system, a user (typically, a member of the network management team) can initiate an out-of-band session with the dedicated server management computer hosted in the managed server via a remote console application program being executed on a client computer. The management computer could be addressed by the user to control various aspects of the operation of the managed server via control circuitry connected to the embedded server management computer hosted by the managed server.

As indicated above, paragraph [0017] of Neufeld describes initiating an out-of-band session with a dedicated server management computer hosted in a managed server via a remote console application program being executed on a client computer. This is not analogous to the method recited by claim 1 because Neufeld fails to teach, suggest, or describe transmitting, *from the host computer*, the one or more vendor specific commands to the *emulated device over a communications link between the host computer and the management device*, the communications link conforming to the second communication standard. Paragraph [0017] describes initiating an out-of-band session between a remote console application program executing on a client computer and a dedicated server management computer hosted in the managed server, without teaching, suggesting, or describing transmitting anything from the managed server to an emulated device over a communications link between the managed server and a management device.

The Office Action appears to rely on the teaching of Powderly to cure, allegedly, the above-identified deficiencies of Neufeld. However, like Neufeld, Powderly does not teach, suggest, or describe a method for communicating with a computer management device including the features recited by claim 1. Instead, Powderly describes a method for providing, via a network, emulation of a console of a host computer system on another, remotely located computer system including providing an adapter card connected to an input/output (I/O) bus of a host computer system where the adapter card comprises a peripheral device interface controller to which peripheral devices can be connected and through which the host computer system can access the peripheral devices. This is not analogous to the method recited by claim 1 because Powderly fails to teach, suggest, or describe transmitting, *from the host computer*, the one or

more vendor specific commands to *the emulated device over a communications link between the host computer and the management device*, the communications link conforming to the second communication standard.

The Office Action points to col. 2, lines 42-52 of Powderly as allegedly teaching transmitting, from the host computer, the one or more vendor specific commands to the emulated device over a communications link between the host computer and the management device, the communications link conforming to the second communication standard as recited by claim 1. Applicant respectfully disagrees with this assertion. Col. 2, lines 42-52 of Powderly is reproduced below:

The adapter card comprises a processor, a network interface controller providing a connection to the network, a peripheral device interface controller to which the peripheral device is connected, a communications client program executing on the processor, and at least one computer-readable medium having stored therein a modified BIOS extension for said peripheral device interface controller. The modified BIOS extension comprises first program code and second program code, the second program code being embedded within the first program code and defining a separate server program. Upon selection by a user at the

Applicant respectfully asserts that nowhere in col. 2, lines 42-52 of Powderly does Powderly teach, suggest, or describe transmitting, *from the host computer*, the one or more vendor specific commands to *the emulated device over a communications link between the host computer and the management device*, the communications link conforming to the second communication standard. Therefore, Powderly fails to cure the above-identified deficiencies of Neufeld. Accordingly, claim 1 is allowable over the combined teachings of Neufeld and Powderly.

Further, Neufeld fails to teach, suggest, or describe receiving the one or more vendor specific commands at the management device; determining, at the management device, whether the one or more vendor specific commands are intended for the emulated device; and in response to determining that the one or more vendor specific commands are not intended for the emulated

device, utilizing the received vendor specific commands for communicating with the management device as recited by claim 1. As noted above, Neufeld does not teach, suggest, or describe transmitting, from the host computer, the one or more vendor specific commands to the emulated device over a communications link between the host computer and the management device, the communications link conforming to the second communication standard. It follows, then, that Neufeld also fails to teach, suggest, or describe receiving the one or more vendor specific commands at the management device; determining, at the management device, whether the one or more vendor specific commands are intended for the emulated device; and in response to determining that the one or more vendor specific commands are not intended for the emulated device, utilizing the received vendor specific commands for communicating with the management device.

The Office Action points to paragraph [0063] of Neufeld as allegedly teaching determining, at the management device, whether the one or more vendor specific commands are intended for the emulated device as recited by claim 1. Applicant respectfully disagrees with this assertion. Paragraph [0063] of Neufeld is reproduced below:

[0063] The embedded I/O controller 150 may further include a USB interface 184, which is operatively coupled to the internal local bus 166. The USB interface 184 is connected to a USB host controller (not shown) via a USB host controller interface 186. In one exemplary embodiment, the USB interface 184 is connected to one port of a USB host controller (USB bus 24 of FIG. 2), which is typically located in a south bridge 18 portion of the chipset of the managed server 2. When implemented in this way, the IOP 156 of the remote server management controller 116 may establish “virtual USB peripherals” that will be seen and recognized by any USB-aware OS. These virtual peripherals may be presented to any OS to allow communication with the OS in a common, OS-independent manner.

As indicated above, paragraph [0063] of Neufeld describes that the remote server management controller may establish “virtual USB peripherals” that will be seen and recognized by any USB-aware OS. However, nowhere in paragraph [0063] does Neufeld teach, suggest, or

describe determining, at the management device, whether the one or more vendor specific commands are intended for the emulated device.

The Office Action appears to rely on the teaching of Powderly to cure, allegedly, the above-identified deficiencies of Neufeld. However, like Neufeld, Powderly does not teach, suggest, or describe a method for communicating with a computer management device including the features recited by claim 1. Instead, Powderly describes a method for providing, via a network, emulation of a console of a host computer system on another, remotely located computer system including providing an adapter card connected to an input/output (I/O) bus of a host computer system where the adapter card comprises a peripheral device interface controller to which peripheral devices can be connected and through which the host computer system can access the peripheral devices. This is not analogous to the method recited by claim 1 because Powderly fails to teach, suggest, or describe determining, at the management device, whether the one or more vendor specific commands are intended for the emulated device.

The Office Action points to col. 2, lines 64-67 and col. 3, line 1 of Powderly as allegedly teaching determining, at the management device, whether the one or more vendor specific commands are intended for the emulated device as recited by claim 1. Applicant respectfully disagrees with this assertion. Col. 2, lines 64-67 and col. 3, line 1 of Powderly are reproduced below:

of that interrupt. The server program establishes communications with the communications client program on the adapter card, and, thereafter, upon receipt of requests from the communications client program, invokes functions of the host computer system BIOS to control the peripheral device.

As indicated above, col. 2, lines 64-67 and col. 3, line 1 of Powderly describe that a server program establishes communications with a client program on an adapter card, and upon receiving requests from the communications client program, the server program invokes functions of the host computer system BIOS to control the peripheral device. This is not analogous to the method recited by claim 1 because Powderly fails to teach, suggest, or describe determining, at the adapter card or a management device, whether one or more vendor specific

commands are intended for an emulated device. The peripheral device described in col. 2, lines 64-67 and col. 3, line 1 and in the remainder of Powderly is not an emulated device as recited by claim 1. Instead, Powderly describes that the peripheral device is connected to a peripheral device interface controller of the adapter card. Therefore, Powderly fails to cure the above-identified deficiencies of Neufeld. Accordingly, claim 1 is allowable over the combined teachings of Neufeld and Powderly.

Moreover, the Office Action points to paragraph [0053] of Neufeld as allegedly teaching in response to determining that the one or more vendor specific commands are not intended for the emulated device, utilizing the received vendor specific commands for communicating with the management device as recited by claim 1. Applicant respectfully disagrees with this assertion. Paragraph [0053] of Neufeld is reproduced below:

[0053] The logic of the remote server management controller **116** is broken down into three main functional blocks. The first of these three functional blocks is an embedded I/O controller **150**, which is essentially an independent computer system that is integrated within the managed server **2**. The second and third functional blocks of the remote server management controller **116** are a slave instrumentation module **152** and a remote console redirection module **154**. As described below, the embedded I/O controller **150** monitors and controls a wide range of conditions in the managed server **20** via the slave instrumentation module **152** and the remote console redirection module **154**.

Applicant respectfully asserts that nowhere in paragraph [0053] of Neufeld does Neufeld teach, suggest, or describe in response to determining that the one or more vendor specific commands are not intended for the emulated device, utilizing the received vendor specific commands for communicating with the management device as recited by claim 1. If this rejection is maintained, Applicant respectfully requests that the Examiner provide further explanation regarding how Neufeld allegedly describes this recitation of claim 1.

The Office Action appears to rely on the teaching of Powderly to cure, allegedly, the above-identified deficiencies of Neufeld. However, like Neufeld, Powderly does not teach,

suggest, or describe a method for communicating with a computer management device including the features recited by claim 1. Instead, Powderly describes a method for providing, via a network, emulation of a console of a host computer system on another, remotely located computer system including providing an adapter card connected to an input/output (I/O) bus of a host computer system where the adapter card comprises a peripheral device interface controller to which peripheral devices can be connected and through which the host computer system can access the peripheral devices. This is not analogous to the method recited by claim 1 because Powderly fails to teach, suggest, or describe in response to determining that the one or more vendor specific commands are not intended for the emulated device, utilizing the received vendor specific commands for communicating with the management device.

The Office Action points to col. 4, lines 46-54 of Powderly as allegedly teaching in response to determining that the one or more vendor specific commands are not intended for the emulated device, utilizing the received vendor specific commands for communicating with the management device as recited by claim 1. Applicant respectfully disagrees with this assertion. Col. 4, lines 46-54 of Powderly is reproduced below:

When the host system BIOS executes its power-on self-test (POST), it searches for any BIOS extension code provided on any adapter cards connected to its input/output bus. If a BIOS extension is located, the host loads the BIOS extension code into its host memory for execution (a process sometimes referred to as “shadowing”). After executing the BIOS extension code, the system BIOS completes its normal POST execution, which typically concludes with the booting of the operating system.

Applicant respectfully asserts that nowhere does col. 4, lines 46-54 of Powderly teach, suggest, or describe utilizing the received vendor specific commands for communicating with the management device *in response to determining that the one or more vendor specific commands are not intended for the emulated device*. Therefore, Powderly fails to cure the above-identified deficiencies of Neufeld. Accordingly, claim 1 is allowable over the combined teachings of Neufeld and Powderly.

For at least the above reasons, claim 1 is allowable over the combined teachings of Neufeld and Powderly. Since claims 3-8 depend from claim 1 and recite additional features, Applicant respectfully asserts that claims 3-8 are also allowable over the combined teachings of Neufeld and Powderly. Claims 3-8 are also allowable over the combined teachings of Neufeld and Powderly for further reasons. In particular, claim 3 recites that utilizing the received vendor specific commands for communicating with the management device in response to determining that the one or more vendor specific commands are not intended for the emulated device comprises utilizing data contained in the received vendor specific commands to configure the management device. Neufeld describes that the managed server transfers data between a processor and a video graphics controller of the managed server over a PCI bus of the managed server and that the remote management controller snoops the data sent by the processor of the managed server to the video graphics controller of the managed server, without teaching, suggesting, or describing utilizing data contained in the received vendor specific commands to configure the management device. Powderly fails to cure the deficiencies of Neufeld.

Claim 5 recites that utilizing the received vendor specific commands for communicating with the management device in response to determining that the one or more vendor specific commands are not intended for the emulated device comprises determining coordinates of a user input cursor on a remote computer system, and returning the coordinates to the host computer in response to the received vendor specific commands. Again, Neufeld describes that the managed server transfers data over a PCI bus which is snooped by the remote management controller, without teaching, suggesting, or describing determining coordinates of a user input cursor on a remote computer system, and returning the coordinates to the host computer in response to the received vendor specific commands. Powderly fails to cure the deficiencies of Neufeld. For at least these additional reasons, claims 3-8 are allowable over the combined teachings of Neufeld and Powderly. Accordingly, Applicant respectfully requests withdrawal of these rejections.

For reasons similar to those given above with regard to claim 1, Applicant respectfully submits that claims 9 and 16 are also allowable over the combined teachings of Neufeld and Powderly. Since claims 10-15 depend from claim 9 and recite further claim features and claims 17-20 depend from claim 16 and recite further claim features, Applicant respectfully submits that the combined teachings of Neufeld and Powderly do not make obvious Applicant's claimed

invention as embodied in claims 10-15 and 17-20. Accordingly, withdrawal of these rejections is respectfully requested.

CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that all of the pending claims in the present application are in condition for allowance. Reconsideration of the application and allowance of the claims at an early date is solicited. If the Examiner has any questions or comments concerning this matter, the Examiner is invited to contact Applicant's undersigned attorney at the number below.

Respectfully submitted,

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